Department of Energy
Under Secretary for Nuclear Security
Administrator, National Nuclear Security Administration
Washington, DC 20585

National Nuclear Security Administration

October 17, 2024

Mr. Roger Rocha
Vice President and Chief Operating Officer
Mission Support and Test Services, LLC
Nevada National Security Site
232 Energy Way
North Las Vegas, Nevada 89030

WEA-2024-05

Dear Mr. Rocha:

This letter refers to the Department of Energy's (DOE) investigation into the facts and circumstances associated with two ground fall events that occurred on June 29, 2023, and August 22, 2023, when loose and unsecured soil and rocks fell onto and significantly injured four miners at the DOE National Nuclear Security Administration (DOE/NNSA), Nevada National Security Sites, Principal Underground Laboratory for Subcritical Experimentation (PULSE) facility (formerly the U1a Complex).

The DOE/NNSA considers the two ground fall events to be of high safety significance. The first event involved two miners being struck by falling soil and rocks while installing wire mesh during fibercrete rehabilitation activities. The second event involved two miners being struck by falling soil and rocks during installation of rock bolts with a jackleg drill. The events revealed deficiencies in: (1) management responsibilities and training and information, and (2) hazard identification, assessment, prevention and abatement, and safety and health standards.

Based on an evaluation of the evidence in this matter, DOE/NNSA concludes that MSTS violated requirements prescribed under 10 Code of Federal Regulations (C.F.R.) Part 851, *Worker Safety and Health Program*. Accordingly, DOE/NNSA hereby issues the enclosed Preliminary Notice of Violation (PNOV) which cites two Severity Level I violations. The NNSA Nevada Field Office administered a $160,000 contract fee reduction to MSTS for worker safety and health performance deficiencies associated with this event. Therefore, in accordance with 10 C.F.R. § 851.5 (c), DOE/NNSA proposes no civil penalty for the Part 851 violations cited in this PNOV.

After the events, MSTS conducted a root cause analysis (RCA) of the events and issued an RCA report on October 25, 2023. The RCA listed one root cause and two contributing causes. DOE/NNSA concurs with the findings in the RCA and the corrective actions

MSTS listed in their corrective action plan. If effectively implemented, the corrective actions should adequately address the conditions that led to the ground fall events and should prevent recurrence.

Pursuant to 10 C.F.R. § 851.42, *Preliminary Notice of Violation*, you are obligated to submit a written reply within 30 calendar days of receipt of the enclosed PNOV and to follow the instructions specified in the PNOV when preparing your response. If you fail to submit a reply within the 30 calendar days, then in accordance with 10 C.F.R. § 851.42(d), you relinquish any right to appeal any matter in the PNOV, and the PNOV will constitute a final order.

After reviewing your reply to the PNOV, including any proposed additional corrective actions entered into DOE's Noncompliance Tracking System, DOE/NNSA will determine whether any further activity is necessary to ensure compliance with DOE worker safety and health requirements. DOE/NNSA will continue to monitor the completion of corrective actions until this matter is fully resolved.

Sincerely,

Jill Hruby

Enclosures: Preliminary Notice of Violation (WEA-2024-05)

cc: Barry Thom, Mission Support and Test Services, LLC
David Bowman, NA-NV
Betty L. Huck, NA-NV

Enclosure

Preliminary Notice of Violation

Mission Support and Test Services, LLC
Nevada National Security Sites

WEA-2024-05

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with two ground fall events that occurred on June 29, 2023, and August 22, 2023, at the DOE National Nuclear Security Administration (DOE/NNSA) Nevada National Security Sites (NNSS), revealed violations of DOE's 10 Code of Federal Regulations (C.F.R.) Part 851, *Worker Safety and Health Program* regulatory requirements by Mission Support and Test Services, LLC (MSTS). The events involved unsecured soil and rocks falling onto and severely injuring four construction miners at the NNSS Principal Underground Laboratory for Subcritical Experimentation (PULSE) facility.

Event 1: Ground Fall Event in the .100/.104 Zero Point Operation Area

On June 29, 2023, two night shift ("second-shift") miners (Miner 1 and Miner 2) working from an elevated scissor lift were installing wire mesh during fibercrete rehabilitation activities[1] on the back[2] of the .100 drift (tunnel) of the PULSE facility to remediate legacy fibercrete and install a safety-significant (SS) configuration of wire mesh, rock bolt bearing plates, and fibercrete in accordance with Work Package (WP) #3003709925, *Experimentation Area SS Top Bench - Mining*. Earlier that day, day shift ("first-shift") miners removed a legacy engineered barrier (i.e., ground control features consisting of fibercrete/wire mesh/rock bolt bearing plates) to allow for installation of the SS replacement, which created a ground fall hazard.

Unexpected ground movement occurred during the wire mesh installation and Miner 1 and Miner 2 were struck by falling alluvium[3] debris and rocks. Miner 1 was struck primarily on their shoulders and back. Miner 2 was also struck and their left leg was pinned against the scissor lift cage by a large rock (approximately 7 cubic feet and weighing nearly 1,000 pounds). Nearby co-workers assisted in unpinning Miner 2's leg, who was then carried by stretcher to the facility's hoist, evacuated out of the PULSE facility, and evaluated by emergency responders. Miner 1 was ambulatory and exited the

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[1] Fibercrete rehabilitation activities include the removal of legacy fibercrete, wire mesh, and rock bolt bearing plates and the installation of a safety-significant configuration of wire mesh, rock bolt bearing plates, and fibercrete. Rock bolt bearing plates are used to distribute the compressive force of the rock bolt back into the rock mass to create tension and stabilize the rock.
[2] The roof or upper part in any underground mining cavity.
[3] Soil material such as clay, silt, sand, or gravel.

facility a short time later. Both miners were transported to an offsite hospital for treatment.

Event 2: Ground Fall in the U1a.03E Header

On August 22, 2023, two second-shift miners (Miner 3 and Miner 4) were installing rock bolts with a jackleg drill[4] in the newly mined U1a.03E Header in accordance with WP#3003755571, *Z-Pinched Experimental Underground System (ZEUS) Test Bed Mining .03e/.03g/& .03h-U1a.* During their shift, the miners had installed a rock bolt and wire mesh at the 12 o'clock position and had drilled into the 10 o'clock position to install the next rock bolt in the pattern. The miners were changing out drill steel[5] on the jackleg drill when approximately 4 cubic feet of soil and rocks came loose and fell. Miner 3 was struck by a 300-pound rock and debris, causing injuries to their left hand and forearm. Miner 4 was struck on their right shoulder, back, and leg by the same rock and debris, causing multiple contusions. Both miners were ambulatory and evacuated the PULSE facility without help. They were evaluated by emergency responders and transported to an offsite hospital for treatment. Miner 3 was sent to a medical center for emergency hand surgery.

Pursuant to Section 234C of the Atomic Energy Act of 1954, as amended, and DOE regulations set forth at 10 C.F.R. Part 851 (Part 851), *Worker Safety and Health Program*, DOE/NNSA hereby issues this Preliminary Notice of Violation (PNOV) to MSTS. The violations included deficiencies in: (1) management responsibilities, and training and information, and; (2) hazard identification and assessment, hazard prevention and abatement, and safety and health standards. DOE/NNSA has grouped and categorized the violations as two Severity Level I violations.

Severity Levels are explained in Part 851, Appendix B, *General Statement of Enforcement Policy*. Subparagraph VI(b)(1) states that "[a] Severity Level I violation is a serious violation. A serious violation shall be deemed to exist in a place of employment if there is a potential that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment."

The DOE/NNSA Nevada Field Office (NFO) withheld $160,000 of earned fee from MSTS in fiscal year 2023 for safety and health performance deficiencies, which included the two ground fall events. Therefore, in accordance with 10 C.F.R. § 851.5, *Enforcement*, paragraph (c), and DOE Acquisition Regulation 48 C.F.R. § 970.5215-3, *Conditional payment of fee* clause, DOE/NNSA proposes no civil penalty for the violations cited in this PNOV.

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[4] A variable speed, pneumatic, rotary/percussive drill unit usually mounted on a controllable, pneumatic, multiple-stage telescopic feed leg. A jackleg drill is used to drill holes of various depths and diameters into rock or grout for grouting, blasting, or installation of ground support rock bolts.

[5] Drill bits attached to hollow steel bars are called drill steels.

As required by 10 C.F.R. § 851.42(b) and consistent with Part 851, appendix B, the violations are listed below. If this PNOV becomes a final order, then MSTS must prominently post a copy of this PNOV at or near the location where the violation occurred until the violation is corrected in accordance with 10 C.F.R. § 851.42(e).

I. VIOLATIONS

A. Management Responsibilities, and Training and Information

Title 10 C.F.R. § 851.10, *General requirements*, subsection (a), states that "[w]ith respect to a covered workplace for which a contractor is responsible, the contractor must: (1) [p]rovide a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers; and (2) [e]nsure that work is performed in accordance with: (i) [a]ll applicable requirements of [Part 851]; and (ii) [t]he worker safety and health program for that workplace."

Title 10 C.F.R. § 851.20(a), *Management responsibilities*, states that "[c]ontractors are responsible for the safety and health of their workforce and must ensure that contractor management at a covered workplace: (1) [e]stablish written policy, goals, and objectives for the worker safety and health program;...(7) [p]rovide for prompt response to such reports [from workers about hazards] and recommendations [about appropriate ways to control those hazards]; (8) [p]rovide for regular communication with workers about workplace safety and health matters...."

Title 10 C.F.R. § 851.25, *Training and information*, subsection (a), states that "[c]ontractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided training and information on that hazard in order to perform their duties in a safe and healthful manner." Subsection (b) states that "[t]he contractor must provide: (1) [t]raining and information for new workers, before or at the time of initial assignment to a job involving exposure to a hazard; [and] (2) [p]eriodic training as often as necessary to ensure that workers are adequately trained and informed...."

PD-P200.001, *10 CFR 851 Worker Safety and Health Program Description*, revision 16, dated May 2, 2023, section 10.1, *Management Responsibilities* [§ 851.20(a)], subsection 10.1.1, states that "[t]he M&O Contractor is committed to performing all work safely and in a manner that strives for protection of employees...commensurate with the nature and the complexity of the work." Section 10.3, *Hazard Identification and Assessment*, at subsection 10.3.1.D, states that "...processes used to support identification and assessment activities include the following...[r]eviewing health and safety lessons learned from previous work activities....All of these processes follow the Integrated Safety Management (ISM) model...[m]onitor the safety performance and provide prompt and useful feedback to influence safe behavior and continuous improvement." Further, subsection 10.3.3 states that "[t]he M&O Contractor has

established processes that allow personnel to identify hazards in the workplace. Personnel may use hazard notification methods from telephone calls to formal submissions of a work request form."

PD-0001.001, *Integrated Safety Management System Description*, revision 18, dated March 8, 2023, Section 1.0, *Purpose*, at subsection 1.4, states that "…[h]azards will be eliminated or acceptably mitigated and communicated to workers before work is performed." Section 4.1.6, *ISMS Core Function #5, Feedback and Continuous [ISMS] Improvement*, subsection 4.1.6.1, states that "[t]he M&O Contractor seeks to cultivate an atmosphere that emphasizes continuous improvement and the importance of identifying process improvements and efficiencies." Further, subsection 4.1.6.2 states that "[t]he M&O Contractor has mechanisms in place to ensure that worker involvement occurs to provide feedback and improvement. These mechanisms are…E. [t]he Operating Experience program to define the processes and requirements for…using operating experiences and/or lessons learned to improve mission performance and operational awareness in safety, conduct of work…."

CD-0280.001, *General Safety Rules*, revision 3, dated June 26, 2023, section 4.2, *General Requirements*, at subsection 4.2.1, states that the Supervisor must "[e]nsure all employees have been assigned proper training and qualification (T&Q) requirements based on assigned work tasks. Ensure all employees have completed, and remain current in assigned T&Q requirements prior to conducting/performing work tasks."

CD-1200.004, *Skill of the Worker (SOTW)*, revision 1, dated May 12, 2022, section 2.2, *Applicability*, subsection 2.2.2, states that "[o]rganizations in charge of labor class or group(s) and associated personnel are responsible for completing (for new workers), maintaining, updating, and/or revising the SOTW data for the master SOTW record for each labor class or group and/or skill group/set." Section 4.1, *General*, subsection 4.1.1, states that "SOTW skills/tasks are activities that the worker has mastered through experience, training programs, and/or education, which then are frequently performed activities. When a skill/task is determined to be SOTW, then the level of detail in an activity level work [control] document (ALWCD) can be reduced to the identified skill/task." Section 4.4, *Individual Skill of the Worker Record*, states that the "[j]ob [s]upervisor [step 1] create[s]…and…maintain[s] an individual SOTW record for each employee in your labor class or group….NOTE: Individual SOTW records are created using the skills, tasks or activities identified in the Master SOTW record. All craft need to have an individual SOTW record. [step 2] Review current Master SOTW activities for your assigned labor class or group…and determine if they have met, provided or demonstrated the appropriate verification method for each…skill, task, or activity….[step 2.1] **IF** [emphasis in original] they demonstrate the appropriate verification method, **THEN** [emphasis in original] select that method and determine that they are qualified. [step 2.2] **IF** [emphasis in original] they are unable to demonstrate the appropriate verification method, or have demonstrated that they are not proficient at this skill, task, or activity, **THEN** [emphasis in original] indicate that

they are not qualified....[step 6] Ensure that workers are only assigned to perform SOTW work for which they are qualified, as evidenced by their individual SOTW."

CD-1200.005, *Work Package Process*, revision 3, dated June 30, 2022, section 4.7, *Executing ALW*, step [9], states to "[v]erify individual SOTW for specific ALW [activity level work] (considered SOTW) to be performed in the WP, prior to the work being performed per CD-1200.004, *SOTW*." Step [10] states to "[v]erify worker training and qualifications for specific ALW to be performed in the WP prior to the work being performed...."

Contrary to the above requirements, MSTS failed to comply with applicable requirements of Part 851 and the WSHP in relation to management responsibilities and training and information. Specific examples include the following:

1. MSTS failed to formally determine and document whether the miners had mastered SOTW skills/tasks through experience, training programs, and/or education for frequently performed activities. Specifically, MSTS failed to create and maintain an individual SOTW record for each employee in the miner "labor class or group." Further, MSTS failed to follow their established process to adequately determine and document whether construction miners met or demonstrated proficiency for each skill, task, or activity in the Master SOTW record. Instead, MSTS relied on an informal practice to determine whether miners were proficient in each skill, task, or activity before assigning work.

2. MSTS failed to effectively address the second-shift miners' concerns about working under unsecured ground while performing fibercrete rehabilitation activities. Specifically, second-shift miners verbally communicated their concerns to MSTS Construction Management (CM) regarding potentially unsafe mining practices. MSTS CM informed the design engineering organization about the concerns, who then met with CM and the first-shift miners to review and implement a two-phase process[6] to mitigate the hazard of working under unsecured ground to achieve the required SS configuration of wire mesh, rock bolt bearing plates, and fibercrete. However, MSTS did not meet with the second-shift miners to discuss and address their concerns. Consequently, the second-shift miners constructed the design configuration in one phase rather than two phases. In addition, MSTS did not document the revision to the work instructions in the WP before directing work to continue using the two-phase process.

3. MSTS failed to inform design engineers and construction work planners of lessons learned from the first ground fall event. Consequently, additional ground

[6] The two-phase process utilizes an intermediate stage of a double rock bearing plate/double nut configuration as a temporary method of ground control which can be performed from supported ground. The next stage removes the temporary mesh and installs the SS wire mesh with a single rock bearing plate/single nut configuration in a controlled manner, exposing 3 feet of alluvium in sequential steps.

fall hazard controls were not incorporated into WP #30037555712, which did not prohibit miners from working under unsupported ground without suitable protection and exposed them to the risk of falling debris and rocks.

Collectively, these noncompliances constitute a Severity Level I violation.

B. Hazard Identification and Assessment, Hazard Prevention and Abatement, and Safety and Health Standards

Title 10 C.F.R. § 851.21, *Hazard identification and assessment*, subsection (a), states that "[c]ontractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated worker injury and illness. Procedures must include methods to:…(5) [e]valuate operations, procedures, and facilities to identify workplace hazards; [and] (6) [p]erform routine job activity-level hazard analyses…."

Title 10 C.F.R. § 851.22, *Hazard prevention and abatement*, subsection (a), states that "[c]ontractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner. (1) For hazards identified…controls must be incorporated in the appropriate…procedure. (2) For existing hazards identified in the workplace, contractors must:…(iii) [p]rotect workers from dangerous safety and health conditions." Subsection (b) states that "[c]ontractors must select hazard controls based on the following hierarchy:…(2) engineering controls where feasible and appropriate; [and] (3) work practices and administrative controls that limit worker exposures…." Subsection (c) states that "[c]ontractors must address hazards when selecting or purchasing equipment, products, and services."

Title 10 C.F.R § 851.23, *Safety and health standards*, subsection (a), states that "[c]ontractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace…(7) Title 29 [C.F.R.] Part 1926, *Safety and Health Regulations for Construction*…." Subsection (b) states that "[n]othing in this part relieves contractors from the responsibility to comply with any additional safety and health requirements that are necessary to protect the safety and health of workers."

Title 29 C.F.R. § 1926.800, *Underground Construction*, paragraph (o)(3)(v), states that "[s]uitable protection shall be provided for employees exposed to the hazard of loose ground while installing ground support systems." Paragraph (q)(9) states that "[s]caling bars shall be available at scaling operations and shall be maintained in good condition at all times. Blunted or severely worn bars shall not be used."

PD-P200.001, *10 CFR 851 Worker Safety and Health Program Description*, revision 16, May 2, 2023, section 7.0, *Integrated Work Control Process [IWCP] and Activity Level Work Documents (ALWD)*, states that "[t]he M&O Contractor [IWCP] provides a…process for planning and controlling all activity-level work…and managing Skill

of the Worker (SOTW) Program…[work packages] are screened and binned (i.e., categorized) into work types based on the frequency of performance, hazard severity of the work…complexity, and the environment in which work will be performed. The work type determines the associated level of rigor and required hazard analyses that are performed during the planning phase." Section 10.3, *Hazard Identification and Assessment*, at subsection10.3.2, states that "…[r]esults of the activity-level hazards analysis review and associated controls are documented in the appropriate…work package…." Section 10.4, *Hazard Prevention and Abatement*, at subsection 10.4.1, states that "[t]he M&O Contractor has established processes to mitigate potential exposure to hazards associated with proposed work activities, based upon the following hierarchy: A. [e]limination of the hazard [;] B. [u]se of engineering controls [;] C. [u]se of administrative controls…." Section 10.5, *Safety and Health Standards and References*, subsection 10.5.2, states that "[t]he safety and health requirements for operating and conducting work activities within underground facilities located on the NNSS…are described in PD-P200.002, *NNSS Underground Facility Safety and Health Program Description.*"
PD-P200.002, *NNSS Underground Facility Safety and Health Program Description.* Attachment B, *List of Safety and Health Standards not identified in § 851.23 and § 851.27*, lists "30 CFR 57 (when determined to be more applicable by Underground Safety SMEs [subject matter experts] and concurred/approved by DOE/NNSA)."

PD-P200.002, *NNSS Underground Facility Safety and Health Program Description*, revision 5, April 7, 2022, section 1.3, *Applicability*, at subsection 1.3.1.1, states that "[t]he requirements contained in this PD [program description] have been selected for use in…construction, maintenance, operations…of NNSS underground facilities. The selected requirements have been derived from…29 CFR 1926 and other regulations…for example 30 CFR 57…." Section 20.3, *Ground Support*, at subsection 20.3.8, states that "[s]uitable protection shall be provided for employees exposed to the hazard of loose ground while installing ground support systems. {29 CFR 1926.800(o)(3)(v)}" Additionally, subsection 20.3.12 states that "[s]caling shall be performed from a location which will not expose persons to injury from falling material, or other protection from falling material shall be provided. {30 CFR 57.3201}" Further, subsection 20.3.13 states that "[w]here manual scaling is performed, a scaling bar shall be provided. This bar shall be of a length and design that will allow the removal of loose material without exposing the person performing the work to injury. {30 CFR 57.3202}" Moreover, subsection 20.6.14 states that "[s]caling bars shall be available at scaling operations and shall be maintained in good condition at all times….{29 CFR 1926.800(q)(9)}."

Title 30 C.F.R. § 57.3201, *Location for performing scaling*, states that "[s]caling shall be performed from a location which will not expose persons to injury from falling material, or other protection from falling material shall be provided."

Title 30 C.F.R. § 57.3202, *Scaling tools*, states that "[w]here manual scaling is performed, a scaling bar shall be provided. This bar shall be of a length and design

that will allow the removal of loose material without exposing the person performing the work to injury."

PD-0001.001, *Integrated Safety Management System Description*, revision 18, March 8, 2023, section 1.0, *Purpose*, subsection 1.4, states that "[t]he work planning and control process provides the primary mechanisms to integrate safety into work….The hazards associated with work performed will be appropriately evaluated. Hazards will be eliminated or acceptably mitigated and communicated to workers before work is performed."

CD-1200.003, *Activity Level Hazard Analysis Process*, revision 2, October 14, 2021, section 4.2, *Analyzing the Job Hazards*, at subsection, states that "4.2.1[a] JHA [job hazard analysis] is required for each Type-I or -II WP….4.2.2 The JHA is a record form used to document evaluations of the activities, hazards, and related controls…."

CD-1200.005, *Work Package Process*, revision 3, June 30, 2022, section 4.2.3, *Screening and Binning ALW*, states that "…the WP type is determined using the screening and binning process." Step [2] states to "[d]etermine the level of complexity, consequence, and frequency with input from the Planning Team." Step [7], Note 2, states that "…[t]he screening and binning score determines the WP type…." Step [9] of the screening and binning process states that "[i]f at any point there is a consequential change to the WP, THEN re-evaluate the screening and binning and WP type determination for any impacts." Section 4.3, *WP Development*, step [11], states to "[i]ncorporate hazard controls into work instructions." Step [12] states to "[d]etermine and identify which activities are SOTW activities to verify the appropriate level of detail for the task/activity is provided."

OP-2110.408, *Jackleg Drilling Operation*, revision 5, August 27, 2018, section 4.1, *General Jackleg Drilling Safety Comments*, states that the Superintendent must [7] "[h]ave scaling bars of various lengths available at all times…."

OP-2110.422, *Ground Control Underground Construction and Operations*, revision 6, September 25, 2018, section 4.2, *Scaling and Support – Location for Performing Scaling*, states that Construction Department (CD) Manual Workforce must "(1) [p]erform scaling from a location that will not expose persons to falling material." Additionally, it states that "(2) [i]f scaling must be performed in a location that will expose personnel to falling material, THEN [CD Supervision] ensure other protection from falling material is provided." Section 4.3, *Scaling and Support – Scaling Tools*, states that "(1) [w]here manual scaling is performed, [CD Supervision] provide a scaling bar, (2) [e]nsure that the scaling bar is of a length and design that will allow the removal of loose material without exposing the person performing the work to injury."

Contrary to the above requirements, MSTS failed to adequately identify, assess, prevent, and abate hazards related to mining activities in the PULSE facility. Specific examples include the following:

1. MSTS removed a legacy engineered barrier and failed to identify, assess, or develop controls for ground fall hazards in WP #3003709925, resulting in miners performing fibercrete rehabilitation activities while positioned under unsupported ground and without suitable protection. Additionally, MSTS failed to identify adequate controls for ground fall hazards in WP #30037555712, resulting in miners installing rock bolts while positioned under unsupported ground, again without being provided with suitable protection. Consequently, four miners were exposed to ground fall hazards and received significant injuries from two ground fall events.

2. MSTS failed to adequately plan the removal of ground support features (e.g., an engineered barrier) and subsequent installation of SS configuration of wire mesh, rock bolt bearing plates, and fibercrete activities. WP #3003709925 was initially screened and binned as a Type II WP that covered a range of mining activities, but it was subsequently downgraded to a Type III WP due to a change in work scope, resulting in less rigor and the absence of a job hazard analysis. Contrary to the WP process, MSTS downgraded WP #3003709925 to a Type III WP via an email to a subset of WP reviewers (4 of the 12 planning team members). After the first ground fall event, MSTS determined WP #3003709925 should have been a Type II WP because of the complexity, consequence, and frequency related to the removal of ground support features (consisting of fibercrete/wire mesh/rock bolt bearing plates), which was uniquely hazardous and had never been performed at PULSE.
3. MSTS failed to adequately mitigate ground fall hazards associated with removing rock bolt bearing plates during the fibercrete rehabilitation activities. Specifically, MSTS required miners to un-torque and remove rock bolt bearing plates, which can create a potentially hazardous condition (i.e., a ground fall). Consequently, the first ground fall event occurred when miners were installing wire mesh after removing three rock bolt bearing plates.

4. MSTS failed to provide appropriate tools for mining activities in the PULSE facility. Specifically, MSTS failed to provide scaling bars, as required by OP-2110.408, to manually scale loose material. Consequently, miners used rock bolts and rebar to perform manual scaling, which did not allow the miners to work a safe distance away from unsecured ground.

Collectively, these noncompliances constitute a Severity Level I violation.

II. REPLY

Pursuant to 10 C.F.R. § 851.42(b)(4), MSTS is hereby obligated to submit a written reply within 30 calendar days of receipt of this PNOV. The reply should be clearly marked as a "Reply to the Preliminary Notice of Violation."

If MSTS chooses not to contest the violations set forth in this PNOV, then the reply should state that MSTS waives the right to contest any aspect of this PNOV. In such case, this PNOV will constitute a final order upon the filing of the reply.

If MSTS disagrees with any aspect of this PNOV, then as applicable and in accordance with 10 C.F.R. § 851.42(c)(1), the reply must: (1) state any facts, explanations, and arguments that support a denial of a violation; and (2) discuss the relevant authorities that support the position asserted, including rulings, regulations, interpretations, and previous decisions issued by DOE/NNSA. In addition, 10 C.F.R. § 851.42(c)(2) requires that the reply include copies of all relevant documents.

If MSTS fails to submit a written reply within 30 calendar days of receipt of this PNOV, then pursuant to 10 C.F.R. § 851.42(d), MSTS relinquishes any right to appeal any matter in this PNOV and this PNOV will constitute a final order.

Please submit your reply to the Director, Office of Enforcement by email to enforcementdocketclerk@hq.doe.gov. A copy of the reply should also be sent to the Manager of the DOE/NNSA NFO.

III. CORRECTIVE ACTIONS

Corrective actions that have been or will be taken to avoid further violations should be delineated with target and completion dates in DOE's Noncompliance Tracking System. In addition, 10 CFR § 851.42(e) provides that "[a] copy of the PNOV must be prominently posted, once final, at or near the location where the violation occurred until the violation is corrected."

Jill Hruby
Under Secretary for Nuclear Security
Administrator, NNSA

Washington D.C.
This 17 day of October 2024